AMENDMENTS TO THE CLAIMS

1.   (Currently Amended)   A ~~memory to contain~~ digital television signal for use in a digital television receiver for receiving program and system information protocol (PSIP) data about digital television (DTV) content from a broadcast transmitter, ~~the memory being organized to contain a data structure comprising at least one of~~ the digital television signal comprising a PSIP table, wherein the PSIP table comprises:

an information type descriptor ~~segment~~ including an information type identification field that contains a code specifying a data type of extra information associated with a virtual channel or an event in a DTV data stream; and

an extended information descriptor ~~segment~~ including an information expected usage field that includes a first field describing an expected usage of the extra information, the expected usage including a display option of the extra information ~~each of which characterize extra information associated with a virtual channel or an event in a DTV data stream~~.

2.   (Currently Amended)   The digital television signal ~~data structured memory~~ of claim 1, wherein each of said information type descriptor ~~segment~~ and said ~~an~~ extended information descriptor ~~segment~~ further includes:

a descriptor tag field ~~segment~~; and

a descriptor length field ~~segment; and~~

~~an information type identification segment~~.

3.   (Currently Amended)   The <u>digital television signal</u> ~~data structured memory~~ of

claim 2, wherein said descriptor tag <u>field</u> ~~segment~~ has a value of 0xC9 for said information type

descriptor ~~segment~~ and a value of 0xC8 for said ~~an~~ extended information descriptor ~~segment~~.

4.   (Canceled)

5.   (Currently Amended)   The <u>digital television signal</u> ~~data structured memory~~ of

claim <u>1</u> ~~2~~, wherein ~~said information type identification segment contains a~~ <u>the</u> code <u>included in</u>

<u>the information type identification field</u> ~~that~~ characterizes said <u>extra</u> information ~~associated with~~

~~a virtual channel or an event in a DTV data stream~~ as one of:

a GIF-formatted image file;

a JPEG-formatted image file;

a TIFF-formatted image file;

an ASCII text file;

an HTML-formatted text file;

an XML-formatted text file;

a basic audio formatted file having a .au file extension;

an MPEG-formatted audio file;

a WAV-formatted audio file;

an MPEG-formatted video file;

a Quicktime-formatted video file;

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an AVI-formatted video file; and

a user-defined formatted file.

6.   (Currently Amended)   The <u>digital television signal</u> data structured memory of claim <u>1</u> 2, wherein said information type descriptor segment further includes:

an information description length <u>field</u> segment; and

an information description text <u>field</u> segment.

7.   (Currently Amended)   The <u>digital television signal</u> data structured memory of claim 6, wherein said information description length <u>field</u> segment identifies a length of said information description text <u>field</u> segment.

8.   (Currently Amended)   The <u>digital television signal</u> data structured memory of claim 6, wherein said information description text <u>field</u> segment includes text that characterizes said <u>extra</u> information associated with a virtual channel or an event in a DTV data stream.

9.   (Currently Amended)   The <u>digital television signal</u> data structured memory of claim 8, wherein said information type identification <u>field</u> segment includes a code description corresponding to said text description in said information description text <u>field</u> segment.

10.   (Currently Amended)   The digital television signal data structured memory of

claim 1 2, wherein said extended information descriptor segment further includes at least two of:

an information expected usage segment;

an information location length field segment; and

an information location text field segment.

11.   (Currently Amended)   The digital television signal data structured memory of

claim 1 10, wherein said information expected usage segment field further includes at least one

of:

a first field describes a usage of said extra information anticipated by a creator of said

extended information descriptor segment;

a second field that describes said extra information as being an advertisement or not; and

a third field that describes a location on a display screen where said a creator of said

extended information descriptor segment anticipates that a representation of said extra

information should be positioned.

12.   (Currently Amended)   The digital television signal data structured memory of

claim 1 11, wherein said first field describes said extra information as one of:

undefined so as to have no expected usage;

extended event, extended programming guide (EPG) information that is to be displayed

during an EPG display when an event is selected;

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extended event selected information that is to be displayed when an event is selected;

extended channel EPG information that is to be displayed during an EPG display when a channel is selected;

extended channel selected information that is to be displayed when a channel is selected; and

user-defined information.

13.   (Currently Amended) The ~~digital television signal~~ data structured memory of claim 10, wherein said information location length field identifies a remaining length of said extended information descriptor ~~segment~~ as determined by said information location text field ~~segment~~.

14.   (Currently Amended) The digital television signal ~~data structured memory~~ of claim 10, wherein said information location text ~~segment represents~~ field includes a string of text that is interpreted as a universal resource locator (URL).

15.   (Currently Amended) The digital television signal ~~data structured memory~~ of claim 14, wherein said URL is a reference to a data program within said DTV data stream or data external to said DTV data stream.

16.   (Currently Amended)   The <u>digital television signal</u> data structured memory of

claim 15, wherein the external data is from the world wide web (WWW).

17.   (Currently Amended)   The <u>digital television signal</u> data structured memory of

claim 15, wherein said data program within said DTV data stream is referenced with a path

beginning as

    dtv:/

or, said data from the world wide web (WWW) is referenced with a path beginning as

    http://

or

    http://www.

18.   (Currently Amended)   The <u>digital television signal</u> data structured memory of

claim 1, further comprising a link between said an information type descriptor and at least one

of a virtual channel table (VCT) and an event information table (EIT).

19.   (Currently Amended)   The <u>digital television signal</u> data structured memory of

claim 1, further comprising a link between said extended information descriptor segment and at

least one of a virtual channel table (VCT) and an event information table (EIT).

20.   (Currently Amended)   The <u>digital television signal</u> data-structured-memory of

claim <u>1</u> 11, wherein said first field describes said extra information as being at least one of:

intended to be displayed during a displaying of an EPG; and

intended to be displayed independently of a displaying of an EPG.

21.   (Currently Amended)   The <u>digital television signal</u> data-structured-memory of

claim 11, wherein said third field describes said location as being one of:

undefined so as to have no expected location;

in the background relative to information of greater priority on said display screen;

the upper left quadrant of said display screen;

the upper right quadrant of said display screen;

the lower left quadrant of said display screen; and

in the lower right quadrant of said display screen.

22.   (Currently Amended)   A method to generate program and system information

protocol (PSIP) data about digital television (DTV) content, said PSIP data including at least one

<u>PSIP table</u> data-structure as defined in claim 1.

23.   (Currently Amended)   A program and system information protocol (PSIP)

generator to generate PSIP data about digital television (DTV) content, said PSIP data including

at least one <u>PSIP table</u> data-structure as defined in claim 1.

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24.   (Original)   The PSIP generator of claim 23, wherein said PSIP generator is embodied on a computer running software.

25.   (Original) The PSIP generator of claim 24, wherein said software is written in the language Java.

26.   (Currently Amended)   A computer-readable article of manufacture having embodied thereon software to generate program and system information protocol (PSIP) data about digital television (DTV) content, said PSIP data including at least one PSIP table ~~data structure~~ as defined in claim 1.

27.   (Currently Amended)   A method to generate an extended programming guide (EPG) display about content in a digital television (DTV) stream of data packets, said method comprising:

receiving said DTV stream of data packets, said stream containing at least one program and system information protocol (PSIP) ~~data~~;

recognizing an information type descriptor and an extended information descriptor ~~at least one data structure, as defined in claim 1,~~ within said PSIP table ~~data~~, wherein the information type descriptor includes an information type identification field that contains a code specifying a data type of extra information associated with a virtual channel or an event in the

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DTV stream of data packets, and the extended information descriptor includes an information

expected usage field which includes a first field describing an expected usage of the extra

information, the expected usage including a display option of the extra information; and

generating said EPG display as a function of ~~said at least one data structure~~ at least one of

the code included in the information type identification field and the expected usage described in

the first field.

28.   (Original) A digital television (DTV) receiver embodying the method of claim

27.

29.   (Original) The DTV receiver of claim 28, wherein at least part of said DTV

receiver is embodied on a computer running software.

30.   (Original) The DTV receiver of claim 29, wherein said software is written in the

language Java.

31.   (Original) A computer-readable article of manufacture having embodied thereon

software to perform the method of claim 27.

32.   (Canceled)